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The applicant has canceled the nonelected claims 20-30. In addition, claims 31 and 33 have been amended to change the term "ceramic" to -refractory insulation-.

The Examiner objects to the specification because the applicant did not correctly cross reference the applicant's other reissue application and the original patent. The applicant has amended the specification accordingly.

A clean copy of the amended cross reference is attached.

Claims 31-36 are rejected under 35 U.S.C. 251 as being based upon new matter. The Examiner holds that the phrase "the peripheral wall being substantially free of ceramic along part of said calcinations zone" is not supported by the originally filed specification.

The applicant will begin to address this rejection by noting that the term "ceramic" in the claims has been changed to -refractory insulation- which is clearly disclosed in the original patent. Furthermore, please observe that a calcining reactor is identified at 14 in the original patent and that the peripheral wall of the reactor 14 is clearly visible in the drawings. Hence, the peripheral wall of the claims does not constitute new matter. Moreover, as pointed out previously by the applicant, lines 19-27 in column 6 of the original patent refer to "(calcining reactor, cyclone, heat exchangers)" [emphasis by the applicant] when teaching that the need for refractory insulation is eliminated. Since the

original patent clearly teaches that refractory insulation can be omitted from the calcining reactor, it follows that refractory insulation can be omitted from the peripheral wall of the reactor. Accordingly, the phrase "the peripheral wall being substantially free of ceramic along part of said calcination zone" does not constitute new matter.

Claims 31-36 are also rejected under the first paragraph of 35 U.S.C. 112 on the ground that the phrase "the peripheral wall being substantially free of ceramic along part of said calcination zone" is deemed to be new matter not supported by the originally filed specification.

The applicant believes that the preceding remarks addressing the rejection under 35 U.S.C. 251 make it quite clear that the written description requirement of the first paragraph of 35 U.S.C. 112 is met.

Claims 31-36 are further rejected under the second paragraph of 35 U.S.C. 112 on the ground that the recitation "being substantially free of ceramic along part of said calcination zone" is a negative limitation which renders the claims indefinite. The Examiner additionally states that the specification fails to explain what materials other than ceramic may be used.

Regarding the negative limitation, the applicant respectfully directs the Examiner's attention to the second paragraph of MPEP 2173.05(i) which points out that the language "being free from" is considered definite.

With respect to the Examiner's statement that the specification fails to explain what materials other than ceramic may be used, please see column 5, lines 7-10 of the original patent where it is disclosed that the reactor 14 consists of a high-temperature alloy.

The applicant believes that the rejections of claims 31-36 under the first and second paragraphs of 35 U.S.C. 112 may also be based in part on the fact that the original patent does not explicitly use the term "peripheral wall" so that there is no antecedent basis for this term. If this is the case, the Examiner is respectfully referred to the paragraph of MPEP 2173.05(e) headed A CLAIM TERM WHICH HAS NO ANTECEDENT BASIS IN THE DISCLOSURE IS NOT NECESSARILY INDEFINITE. This paragraph points out that the words in the claims are not required to match those in the specification and that applicants are given a great deal of latitude in how they choose to define their invention.

Claims 31-36 are additionally rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. Patent No. 5,713,734 to Makris or U.S. Patent No. 3,881,862 to Nishida. The Examiner is of the opinion that, since neither Makris nor Nishida expressly states that ceramic is used, the peripheral walls of the references are free of ceramic. Alternatively, the Examiner holds that it would be an obvious matter to reduce the use of ceramic along the peripheral walls of Makris and Nishida in order to increase heat conduction and reduce cost.

As pointed out earlier, the claims have been amended to recite that part of the peripheral wall is substantially free from refractory insulation. Since the peripheral walls of all prior art calcining reactors for limestone, including those of Makris and Nishida, are completely lined with refractory insulation, claim 31 and its dependent claims 32-36 are not anticipated by these references.

The applicant notes that a peripheral wall which is completely lined with refractory insulation is structurally different from a peripheral wall which lacks refractory insulation along part of the wall. A peripheral wall with refractory insulation consists of a layer of refractory on a supporting layer of steel. The layer of refractory is omitted on a part of a peripheral wall which is free from refractory. It would seem apparent that an object with refractory differs structurally from an object without refractory.

Furthermore, the elimination of refractory insulation from part of a known calcining reactor operated according to the prior art will result in significant damage to the reactor. Therefore, one of ordinary skill lacks any motivation to make part of the peripheral wall of Makris or Nishida substantially free of such insulation. Hence, claim 31 and its dependent claims 32-36 do not become obvious from these references.

In view of the foregoing, it is respectfully requested that the objection to the specification and the rejections of the claims be withdrawn.

While no fees are believed to be due with this response, please charge any unforeseen cost associated with this response to our Deposit Account No. 17-0055.

Respectfully submitted,



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CLEAN COPY OF NOTICE WITH CROSS REFERENCE TO RELATED REISSUE
APPLICATION AND ORIGINAL PATENT

NOTICE

More than one reissue application has been filed for the reissue of Patent No. 5,975,852.

The reissue applications are application serial no. 10/004,151 filed 02 November 2001

and the present application which is a division of application serial no. 10/004,151.